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(71) Applicant (for all designated States except US): STMI-CROELECTRONICS LIMITED [GB/GB]; 1000 Aztec West, Almondsbury, Bristol BS32 4SQ (GB).

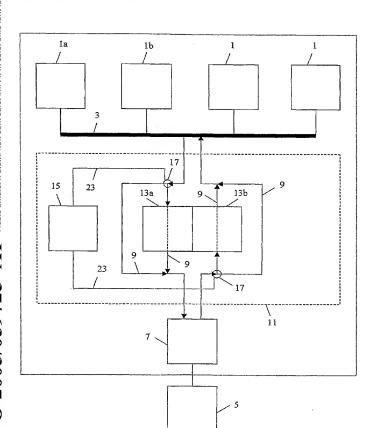
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DELLOW, Andrew

[GB/GB]; 14 Tetbury Street, Minchinhampton, Gloucester GL6 9JG (GB). **GURNEY, Howard** [GB/GB]; C/o STMicroelectronics Limited, 1000 Aztec West, Almondsbury, Bristol BS32 4SQ (GB).

- (74) Agent: LOVELESS, Ian, Mark; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).
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(54) Title: MONOLITHIC SEMICONDUCTOR INTEGRATED CIRCUIT AND METHOD FOR SELECTIVE MEMORY ENCRYPTION AND DECRYPTION



(57) Abstract: A monolithic semiconductor integrated circuit is provided for selectively encrypting or decrypting data transmitted between one of a plurality of devices on the circuit and an external memory. Two series of data pathways connect the devices and the external memory. The first series of data pathways passes through a cryptographic circuit causing data to be encrypted or decrypted, and the other series of data pathways provides an unhindered route. When a data access request is made by a device, the data is selectively routed along one of the two series of data pathways according to the identification of the device making the data access request. In one example, if data is transmitted from a device to the external memory, the data is selectively encrypted before being stored in the external memory if the device transmitting the data is identified as secure. Then, when that data is retrieved from the external memory by a second device, the data is selectively decrypted only if the second device is identified as secure.

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